RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/580, 66	
Source: TrwP	
Date Processed by STIC: $C6/v7$	12006

ENTERED



IFWP

RAW SEQUENCE LISTING DATE: 06/07/2006 PATENT APPLICATION: US/10/580,660 TIME: 11:06:46

Input Set : F:\DEBE066US1.TXT

the transfer of

Output Set: N:\CRF4\06072006\J580660.raw

```
3 <110> APPLICANT: HOFMEISTER, ROBERT ET AL.
     5 <120> TITLE OF INVENTION: Compositions comprising polypeptides
     7 <130> FILE REFERENCE: DEBE:066US
C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/580,660
C--> 10 <141> CURRENT FILING DATE: 2006-05-26
    12 <150> PRIOR APPLICATION NUMBER: PCT/EP 2004/013445
    13 <151> PRIOR FILING DATE: 2004-11-26
    15 <150> PRIOR APPLICATION NUMBER: EP 03 027 511.9
    16 <151> PRIOR FILING DATE: 2003-11-28
    18 <160> NUMBER OF SEQ ID NOS: 6
    20 <170> SOFTWARE: PatentIn version 3.1
    23 <210> SEQ ID NO: 1
    24 <211> LENGTH: 504
    25 <212> TYPE: PRT
    26 <213> ORGANISM: artificial sequence
    28 <220> FEATURE:
    29 <223> OTHER INFORMATION: Construct 1: VL(CD19)-VH(CD19)-VH(CD3)-VL(CD3)
    31 <400> SEQUENCE: 1
    33 Asp Ile Gln Leu Thr Gln Ser Pro Ala Ser Leu Ala Val Ser Leu Gly
    36 Gln Arg Ala Thr Ile Ser Cys Lys Ala Ser Gln Ser Val Asp Tyr Asp
    39 Gly Asp Ser Tyr Leu Asn Trp Tyr Gln Gln Ile Pro Gly Gln Pro Pro
                                  40
    42 Lys Leu Leu Ile Tyr Asp Ala Ser Asn Leu Val Ser Gly Ile Pro Pro
    45 Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Asn Ile His
                          70
    48 Pro Val Glu Lys Val Asp Ala Ala Thr Tyr His Cys Gln Gln Ser Thr
                       85
                                          90
    51 Glu Asp Pro Trp Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys Gly
                  100
                                      105
    120
    57 Gln Leu Gln Gln Ser Gly Ala Glu Leu Val Arg Pro Gly Ser Ser Val
    60 Lys Ile Ser Cys Lys Ala Ser Gly Tyr Ala Phe Ser Ser Tyr Trp Met
                          150
                                              155
    63 Asn Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile Gly Gln
                                         170
    66 Ile Trp Pro Gly Asp Gly Asp Thr Asn Tyr Asn Gly Lys Phe Lys Gly
                  180
                                      185
    69 Lys Ala Thr Leu Thr Ala Asp Glu Ser Ser Ser Thr Ala Tyr Met Gln
```

Input Set : F:\DEBE066US1.TXT

Output Set: N:\CRF4\06072006\J580660.raw

200 195 72 Leu Ser Ser Leu Ala Ser Glu Asp Ser Ala Val Tyr Phe Cys Ala Arg 215 220 75 Arg Glu Thr Thr Thr Val Gly Arg Tyr Tyr Ala Met Asp Tyr Trp 230 78 Gly Gln Gly Thr Thr Val Thr Val Ser Ser Gly Gly Gly Ser Asp 250 245 81 Ile Lys Leu Gln Gln Ser Gly Ala Glu Leu Ala Arg Pro Gly Ala Ser 265 260 84 Val Lys Met Ser Cys Lys Thr Ser Gly Tyr Thr Phe Thr Arg Tyr Thr 280 87 Met His Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile Gly 295 290 90 Tyr Ile Asn Pro Ser Arg Gly Tyr Thr Asn Tyr Asn Gln Lys Phe Lys 310 315 93 Asp Lys Ala Thr Leu Thr Thr Asp Lys Ser Ser Ser Thr Ala Tyr Met 325 330 96 Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys Ala 345 99 Arg Tyr Tyr Asp Asp His Tyr Cys Leu Asp Tyr Trp Gly Gln Gly Thr 100 355 360 102 Thr Leu Thr Val Ser Ser Val Glu Gly Gly Ser Gly Gly Ser Gly Gly 375 105 Ser Gly Gly Ser Gly Gly Val Asp Asp Ile Gln Leu Thr Gln Ser Pro 390 395 108 Ala Ile Met Ser Ala Ser Pro Gly Glu Lys Val Thr Met Thr Cys Arg 405 410 111 Ala Ser Ser Ser Val Ser Tyr Met Asn Trp Tyr Gln Gln Lys Ser Gly 420 425 114 Thr Ser Pro Lys Arg Trp Ile Tyr Asp Thr Ser Lys Val Ala Ser Gly 117 Val Pro Tyr Arg Phe Ser Gly Ser Gly Ser Gly Thr Ser Tyr Ser Leu 455 120 Thr Ile Ser Ser Met Glu Ala Glu Asp Ala Ala Thr Tyr Tyr Cys Gln 470 475 123 Gln Trp Ser Ser Asn Pro Leu Thr Phe Gly Ala Gly Thr Lys Leu Glu 485 490 126 Leu Lys His His His His His 500 130 <210> SEQ ID NO: 2 131 <211> LENGTH: 505 132 <212> TYPE: PRT 133 <213> ORGANISM: artificial sequence 136 <220> FEATURE: 137 <223 > OTHER INFORMATION: Construct 2: VH(CD19) -VL(CD19) -VH(CD3) -VL(CD3) 139 <400> SEQUENCE: 2 141 Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Val Arg Pro Gly Ser 144 Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Ala Phe Ser Ser Tyr

Input Set : F:\DEBE066US1.TXT

Output Set: N:\CRF4\06072006\J580660.raw

145				20					25					30		
145	Trn	Mot	7 cn		val	Tvc	Gl n	Arg		Gl v	Cl n	Clv	LOU	-	Trn	Tle
	тър	Mec		пр	vai	пуъ	GIII	40	PIO	Gry	GIII	GIY	45	GIU	пр	116
148	~ 3	~1	35	(T) 2020	Desc	C1	7 ~~		7 ~~	mb w	7 ~~	TT		~1	T	Dho
	GTA		тте	пр	PIO	GIA		Gly	Asp	TIIL	ASII		ASII	GIY	гуѕ	Pne
151	-	50	_			_	55	_ ~	_		_	60	_	_,	_ ~	_
	-	Gly	Lys	Ala	Thr		Thr	Ala	Asp	GIu		Ser	ser	Thr	Ala	_
154						70					75		_		_	80
156	Met	Gln	Leu	Ser	Ser	Leu	Ala	Ser	Glu	Asp	Ser	Ala	Val	Tyr	Phe	Cys
157					85					90					95	
159	Ala	Arg	Arg	Glu	Thr	Thr	Thr	Val	Gly	Arg	Tyr	Tyr	Tyr	Ala	Met	Asp
160				100					105					110		
162	Tyr	Trp	Gly	Gln	Gly	Thr	Thr	Val	Thr	Val	Ser	Ser	Gly	Gly	Gly	Gly
163			115					120					125			
165	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Asp	Ile	Gln	Leu	Thr
166		130					135					140				
168	Gln	Ser	Pro	Ala	Ser	Leu	Ala	Val	Ser	Leu	Gly	Gln	Arg	Ala	Thr	Ile
	145					150					155		_			160
171	Ser	Cvs	Lvs	Ala	Ser	Gln	Ser	Val	qzA	Tyr	Asp	Gly	Asp	Ser	Tyr	Leu
172			_		165				•	170	-	-	-		175	
	Asn	Trp	Tvr	Gln		Ile	Pro	Gly	Gln	Pro	Pro	Lvs	Leu	Leu	Ile	Tvr
175		E	-7-	180				1	185			-1		190		-1 -
	Asp	Δla	Ser		Leu	Val	Ser	Gly		Pro	Pro	Ara	Phe		Glv	Ser
178			195			• • • •		200					205		1	
	Glv	Ser		Thr	Agn	Phe	Thr	Leu	Δcn	Tle	His	Pro		Glu	T.vs	Val
181	0-1	210	Q- <i>y</i>		1101		215	Leu				220	• • • •	014	2,5	
	Acn		Δla	Thr	Тълг	Hic		Gln	Gln	Sar	Thr		Δen	Pro	Trn	Thr
	225	ліа	Αια	1111	1 y 1	230	Cys	GIII	G111	DCI	235	GIU	пор	110	11p	240
		Clv	Clv	Clv	Thr		T 011	Glu	Tlo	Luc		Glaz	Glw	Gl ₃₇	G1 _V	
187	FILE	Gry	GIY	GIY	245	цуз	пеп	Giu	116	250	Ser	Gry	GTĀ	Gry	255	Ser
	7 an	тіс	T ***	T 011		C15	C0~	Gly	71-		T 011	71-	7~~	Dro		7 J a
	Asp	ire	цуѕ	260	GIII	GIII	Ser	GTĀ	265	Giu	пеп	Ата	Arg	270	GIY	AIA
190	Com	1703	T		Com	C	T	mb~		~1··	П	mb x	Dho		7 ~~	TT
	ser	vai		Mec	ser	Cys	пуѕ	Thr	ser	GIY	TAT	TIIL		1111	Arg	TYL
193	ml	34-4	275	m	77-7	T	~1	280	D	~ 1	<u>ما -</u>	a 1	285	~ 1	Шест	T1.
	Thr		HIS	Trp	vaı	ьys		Arg	PIO	GIY	GIII	_	Leu	Gru	пр	TIE
196	~1	290	~1.			a	295	~ 1	m	m1	7	300	7	01	T	Dl
	_	Tyr	TTe	Asn	Pro		Arg	Gly	Tyr	Thr		Tyr	Asn	Gin	гаг	
	305	_	_			310		_,	_	_	315	_	_			320
	Lys	Asp	Lys	Ala		Leu	Thr	Thr	Asp		Ser	Ser	Ser	Thr		Tyr
202		_			325		_		_	330		_	_		335	
	Met	Gln	Leu		Ser	Leu	Thr	Ser		Asp	Ser	Ala	Val		Tyr	Cys
205				340					345					350		
	Ala	Arg	Tyr	Tyr	Asp	Asp	His	Tyr	Cys	Leu	Asp	Tyr	Trp	Gly	Gln	Gly
208			355					360					365			
210	Thr	Thr	Leu	Thr	Val	Ser	Ser	Val	Glu	Gly	Gly	Ser	Gly	Gly	Ser	Gly
211		370					375					380				
213	Gly	Ser	Gly	Gly	Ser	Gly	Gly	Val	Asp	Asp	Ile	Gln	Leu	Thr	Gln	Ser
	385		-	-		390	_		_	_	395					400
216	Pro	Ala	Ile	Met	Ser	Ala	Ser	Pro	Gly	Glu	Lys	Val	Thr	Met	Thr	Cys
217					405				-	410	-				415	-

Input Set : F:\DEBE066US1.TXT

• • • •

Output Set: N:\CRF4\06072006\J580660.raw

219 Arg Ala Ser Ser Ser Val Ser Tyr Met Asn Trp Tyr Gln Gln Lys Ser 420 425 222 Gly Thr Ser Pro Lys Arg Trp Ile Tyr Asp Thr Ser Lys Val Ala Ser 440 435 225 Gly Val Pro Tyr Arg Phe Ser Gly Ser Gly Ser Gly Thr Ser Tyr Ser 455 228 Leu Thr Ile Ser Ser Met Glu Ala Glu Asp Ala Ala Thr Tyr Tyr Cys 470 475 231 Gln Gln Trp Ser Ser Asn Pro Leu Thr Phe Gly Ala Gly Thr Lys Leu 485 490 234 Glu Leu Lys His His His His His 500 235 238 <210> SEQ ID NO: 3 239 <211> LENGTH: 504 240 <212> TYPE: PRT 241 <213> ORGANISM: artificial sequence 243 <220> FEATURE: 244 <223> OTHER INFORMATION: Construct 6: VH(CD3)-VL(CD3)-VH(CD19)-VL(CD19) 246 <400> SEQUENCE: 3 248 Asp Ile Lys Leu Gln Gln Ser Gly Ala Glu Leu Ala Arg Pro Gly Ala 251 Ser Val Lys Met Ser Cys Lys Thr Ser Gly Tyr Thr Phe Thr Arg Tyr 25 254 Thr Met His Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile 257 Gly Tyr Ile Asn Pro Ser Arg Gly Tyr Thr Asn Tyr Asn Gln Lys Phe 260 Lys Asp Lys Ala Thr Leu Thr Thr Asp Lys Ser Ser Ser Thr Ala Tyr 70 75 263 Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys 90 266 Ala Arg Tyr Tyr Asp Asp His Tyr Cys Leu Asp Tyr Trp Gly Gln Gly 105 100 269 Thr Thr Leu Thr Val Ser Ser Gly Gly Gly Ser Gly Gly Gly Gly 270 120 272 Ser Gly Gly Gly Ser Asp Ile Gln Leu Thr Gln Ser Pro Ala Ile 135 275 Met Ser Ala Ser Pro Gly Glu Lys Val Thr Met Thr Cys Arg Ala Ser 155 150 278 Ser Ser Val Ser Tyr Met Asn Trp Tyr Gln Gln Lys Ser Gly Thr Ser 165 170 281 Pro Lys Arg Trp Ile Tyr Asp Thr Ser Lys Val Ala Ser Gly Val Pro 180 185 284 Tyr Arg Phe Ser Gly Ser Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile 200 287 Ser Ser Met Glu Ala Glu Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp 215 290 Ser Ser Asn Pro Leu Thr Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys 291 225 230

Input Set : F:\DEBE066US1.TXT

• .

Output Set: N:\CRF4\06072006\J580660.raw

```
293 Ser Gly Gly Gly Ser Gln Val Gln Leu Gln Gln Ser Gly Ala Glu
                   245
296 Leu Val Arg Pro Gly Ser Ser Val Lys Ile Ser Cys Lys Ala Ser Gly
                                    265
                260
299 Tyr Ala Phe Ser Ser Tyr Trp Met Asn Trp Val Lys Gln Arg Pro Gly
           275
                                280
302 Gln Gly Leu Glu Trp Ile Gly Gln Ile Trp Pro Gly Asp Gly Asp Thr
                            295
305 Asn Tyr Asn Gly Lys Phe Lys Gly Lys Ala Thr Leu Thr Ala Asp Glu
                       310
                                            315
308 Ser Ser Ser Thr Ala Tyr Met Gln Leu Ser Ser Leu Ala Ser Glu Asp
                   325
                                        330
311 Ser Ala Val Tyr Phe Cys Ala Arg Arg Glu Thr Thr Val Gly Arg
                                    345
               340
314 Tyr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr Thr Val Thr Val
317 Ser Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
                            375
320 Ser Asp Ile Gln Leu Thr Gln Ser Pro Ala Ser Leu Ala Val Ser Leu
                                            395
                        390
323 Gly Gln Arg Ala Thr Ile Ser Cys Lys Ala Ser Gln Ser Val Asp Tyr
                    405
                                        410
326 Asp Gly Asp Ser Tyr Leu Asn Trp Tyr Gln Gln Ile Pro Gly Gln Pro
                                   425
329 Pro Lys Leu Leu Ile Tyr Asp Ala Ser Asn Leu Val Ser Gly Ile Pro
          435
                                440
332 Pro Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Asn Ile
       450
                            455
                                                460
335 His Pro Val Glu Lys Val Asp Ala Ala Thr Tyr His Cys Gln Gln Ser
                       470
                                            475
338 Thr Glu Asp Pro Trp Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
                                        490
                    485
339
341 Ser Gly His His His His His
                500
345 <210> SEQ ID NO: 4
346 <211> LENGTH: 503
347 <212> TYPE: PRT
348 <213> ORGANISM: artificial sequence
350 <220> FEATURE:
351 <223> OTHER INFORMATION: Construct 8: VH(CD3)-VL(CD3)-VL(CD19)-VH(CD19)
353 <400> SEQUENCE: 4
355 Asp Ile Lys Leu Gln Gln Ser Gly Ala Glu Leu Ala Arg Pro Gly Ala
358 Ser Val Lys Met Ser Cys Lys Thr Ser Gly Tyr Thr Phe Thr Arg Tyr
361 Thr Met His Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
364 Gly Tyr Ile Asn Pro Ser Arg Gly Tyr Thr Asn Tyr Asn Gln Lys Phe
365
                            55
```

VERIFICATION SUMMARYDATE: 06/07/2006PATENT APPLICATION: US/10/580,660TIME: 11:06:47

Input Set : F:\DEBE066US1.TXT

Output Set: N:\CRF4\06072006\J580660.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application Number L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date